2018

Developmental Trauma: Innovative Conceptualizations and Services

2018 ANNUAL REPORT

CENTER FOR THE TREATMENT OF DEVELOPMENTAL TRAUMA DISORDERS (CTDTD)

CENTER FOR CHILD TRAUMA ASSESSMENT, SERVICES, AND INTERVENTIONS (CCTASI)

NATIONAL CHILD TRAUMATIC STRESS NETWORK

About Our Centers

CTDTD

The Center for the Treatment of Developmental Trauma Disorders (CTDTD) provides training and technical assistance (TTA) *to child and family services professional/peer counselors and clinicians, case managers, supervisors, administrators, advocates, mentors, and policy makers nationally* in order to enable them to make systematic selective clinical decisions based on developmental trauma-focused assessments, interventions, and practice guidelines, and to thus increase the availability nationally of developmentally-informed client-centered services for children/families recovering from critical and often treatment-refractory adverse developmental impacts of trauma (e.g., self-harm, suicidality, addiction, dissociation, aggression, relational re-victimization).

CCTASI

The Center for Child Trauma Assessment, Services, and Interventions (CCTASI) *develops, trains, implements and evaluates trauma-focused interventions and products* to support developmental trauma-informed screening and assessment practices; offering training and consultation for front line/non-clinical staff on NCTSN interventions/service approaches; adapting interventions and services for culturally diverse and underserved populations; and developing and disseminating trauma-informed products to increase public awareness. CCTASI addresses gaps in trauma-informed practices for subpopulations, including foster care, residential, early education, juvenile probation and diversion, and transition age youth.

Purpose of This Report

This Report is a joint product of CTDTD and CCTASI to inform NCTSN Centers, Affiliates, and partners—and all service systems, workforces, professionals, policymakers, advocates, and communities that support the recovery of traumatized children and families—about recent important developments in our field's ***understanding of, and treatment and prevention programs for, the adverse impacts of developmental trauma***.

As the CCTASI works to enhance education on the developmental effects of trauma with service system partners (in child welfare, residential, and juvenile justice settings), and CTDTD works to enhance therapist/counselor knowledge and abilities for the assessment and treatment of children and families with developmental trauma disorders, this Annual Report provides a foundation for those systems-building and workforce development projects as well as for the work of NCTSN programs and our multidisciplinary partners serving developmentally traumatized children.

The Report includes three sections, each describing important work being done over the past year in the multidisciplinary fields studying and providing services for developmental trauma:

Sections

I. Resources on Developmental Trauma Disorder and Complex Trauma

"Critical Moments in Developmental Trauma Therapy" Webinar Series

The Center for the Treatment of Developmental Trauma Disorders (CTDTD), in collaboration with the National Center for Child Traumatic Stress (NCCTS), is airing a four-year series of webinars designed to enable child and family-serving behavioral health clinicians, counselors, and trainees to sensitively and knowledgeably handle crises *as they occur in the therapy session* with children who have experienced developmental trauma and their families.

Each webinar begins with a film that takes viewers inside a therapist's office to sit with them as they're faced with critical moments that are turning points in their client's lives. These are dramatizations with actors in the role of clients, but the crises and dilemmas are very real, and the therapists are experts in working with traumatized youth and families. Each session tackles a unique critical incident in therapy that places the therapeutic relationship—and potentially the lives of the clients—in jeopardy. We hope you'll find that this and each future webinar will help prepare you with insight and inspiration to assist the countless youth and families who are resiliently recovering from the devastating impact of developmental trauma. After the film showing several key moments in from the therapy session, the therapist and two experts provide live commentary on key points illustrated and key questions raised by the therapy film. A second brief film then is shown with immediate post-session interviews with the therapist and each client, in which they describe their (often unspoken) thoughts and reactions regarding what happened, what was helpful and what was not, and what questions they are left with following the session. The therapist and expert commentator panel are re-convened after the second film for further discussion and to answer audience questions.

In the first season of the webinar series (see summary Table below), six therapy dramatizations were shown, followed by two webinars in which the most critical moments were shown again and highlighted in order to provide insights into the experience of the therapist at peak moments of intensity or difficulty in treatment. All of the webinars in the series can be viewed at no charge on the NCTSN Learning Center website: www.learn.nctsn.org.

Webinar Date	Webinar Title	Therapist(s)	Moderator	Commentators
#1 10/26/2017	*Helping an Angry Father Find Common Ground with his Son*	Mandy Habib	Julian Ford	Glenn Saxe Maureen Allwood
#2 12/7/2017	*Reconnecting a Family Torn Apart by Violence and Addiction*	Julian Ford, Rocio Chang	Joseph Spinazzola	Cheryl Lanktree Neha Desai
#3 2/15/2018	*Guiding Youth through Loss and Betrayal*	Margaret Blaustein	Julian Ford	Ernestine Briggs-King Adam Brown
#4 3/15/2018	*Engaging a Sexually Traumatized Youth in Therapy*	Bill Saltzman	Julian Ford	Glenn Saxe Maureen Allwood
#5 4/19/2018	*Supporting a Recently Traumatized Youth in a Crisis of Dissociation and Self-Harm*	Rocio Chang	Julian Ford	Ernestine Briggs-King Victor LaBruna
#6 5/17/2018	*Helping a Family Cope with the Threat of Revictimization*	Julian Ford	Rocio Chang	Cheryl Lanktree Monique Marrow
#7 6/21/2018	*Calm in the Storm: Therapist Attunement and Self-Regulation When Crises Occur in Session*	Mandy Habib, Julian Ford, Rocio Chang	Adam Brown	Julian Ford Victor Labruna Rocio Chang
#8 7/20/2018	*Finding Connection: Therapist Attunement and Self-Regulation When Clients Shut Down or Dissociate*	Margaret Blaustein, Bill Saltzman, Julian Ford	Rocio Chang	Margaret Blaustein Bill Saltzman Julian Ford
#9 9/27/2018	*Understanding Developmental Trauma Disorder and PTSD – A Spirited Three-way Discussion with John Briere, Michael Suvak, and Julian Ford*		Rocio Chang, Isaiah Pickens	Julian Ford John Briere Michael Suvak

Developmental Trauma Semi-Structured Interview

The *Developmental Trauma Disorder Semi-Structured Interview* (DTD-SI) assesses problems with post-traumatic dysregulation for 7-18 year old children and adolescents. DTD-SI items were initially formulated by a group of content-matter experts from the National Child Traumatic Stress Network. Iterative revisions were made by a lead author in consultation with an expert panel, and based on the results of pilot clinical research tests of the interview at two Field Trial coordinating center sites. DTD-SI version 10.0 was used in a field trial study, The current DTD-SI version 10.6 was revised based on field trial results, and includes 15 core items (each with multiple probes for more detailed information) that correspond to the symptoms in three DTD symptom criteria sets: B. emotion/somatic dysregulation (four items; three or more required for DTD diagnosis), attentional/behavioral dysregulation (five items; two or more required for DTD diagnosis), and interpersonal/self- dysregulation (six items; two or more required for DTD diagnosis). Each DTD symptom was assessed with an initial descriptive statement designed either for adult caregivers or children eight years of age or older. Specific follow-up probe questions collect sufficient information to determine whether a symptom can be distinguished from normative developmental phenomena and was present and impaired the child/youth's functioning in the past 30 days.

In the first phase of the DTD field trial, retest and inter-rater reliability was confirmed for all DTD-SI items. Three internally consistent factors consistent with the hypothesized DTD structure were identified by confirmatory factor analysis. Item Response Theory analyses confirmed that the DTD construct is unidimensional, and all items were informative and (with one exception) unbiased demographically. Provisional DTD cases were identified using a conservative threshold for emotion dysregulation and a less restrictive threshold for cognitive/ behavioral and self/interpersonal dysregulation, and provisional DTD cases had psychosocial impairment beyond that accounted for by psychiatric comorbidity, PTSD, parent-reported child dysregulation, or poly-victimization. Convergent validity of the interview was supported by analyses of variance showing that DTD cases had higher levels of psychosocial impairment, psychiatric comorbidity, and parent-rated dysregulation and alexithymia, and lower child self-

reported self-efficacy than children who met the DTD exposure criterion but not the symptom criteria or children who met neither the DTD exposure nor symptom criteria.

Developmental Trauma Disorder Structured Interview Items

Criterion B (current emotion or somatic dysregulation, 4 items; 3 required for DTD)

- B1: Emotion dysregulation (either B1.a. extreme negative affect states; or B1.b. impaired recovery from negative affect states)
- B2: Somatic dysregulation (either B2.a. aversion to touch; or B2.b. aversion to sounds; or B2.c. somatic distress/illness that cannot be medically explained/resolved)
- B3: Impaired access to emotion or somatic feelings (either B3.a. absence of emotion; or B3.b. physical anaesthesia that cannot be medically explained/resolved)
- B4: Impaired Emotion or Somatic Verbal Mediation/Expression (either B4.a. alexithymia; or B4.b. impaired ability to recognize/express somatic feelings/states)

Criterion C (current attentional or behavioral dysregulation, 5 items; 2 required for DTD)

- C1: Attention bias toward or away from threat (either C1.a. threat-related rumination; or C1.b. hyper- or hypo-vigilance to actual or potential danger)
- C 2: Impaired self-protection (either C2.a. extreme risk-taking or recklessness; or, C2.b. intentional provocation of conflict or violence)
- C 3: Maladaptive self-soothing
- C4: Non-suicidal self-injury
- C5: Impaired ability to initiate or sustain goal-directed behavior

Criterion D (current relational- or self-dysregulation, 6 items; 2 required for DTD)

- D1: Self-loathing, including self-viewed as irreparably damaged and defective
- D2: Attachment insecurity and disorganization (either D2.a. parentified over-protection of caregivers; or D2.b. difficulty tolerating reunion following separation from primary caregiver(s))
- D3: Betrayal-based relational schemas (either D3.a. expectation of betrayal; or D3.b. oppositional-defiance based on expectation of coercion or exploitation)

- D4: Reactive verbal or physical aggression (including proactive instrumental aggression that is motivated primarily by preventing/responding to harm/injury)
- D5: Impaired psychological boundaries (either D.5a. promiscuous enmeshment; or D5.b. craving for reassurance)
- D6: Impaired interpersonal empathy (either D6.a. lacks empathy for, or intolerant of, others' distress; or D6.b. excessive responsiveness to the distress of others

Citations

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Remembering Trauma Film and Resource Guides: Developmental Trauma/Complex Trauma Enhancements

CCTASI developed a 2-part short film focused on raising awareness about complex trauma (with providers and youth/families) is titled "Remembering Trauma: Connecting the Dots between Complex Trauma and Misdiagnosis in Youth." Part 1 of the short film follows a young male character at different development stages and highlights services offered in different systems. Part 2 of the film includes clips of the narrative from Part 1 paired with relevant interviews by real world trauma-informed experts and practitioners. This expert commentary focuses on how trauma reactions may manifest with youth in various settings and how using a trauma-informed perspective can enhance work with youth. The primary development of this 2-part film took place in previous years in partnership with other NCTSN developmental trauma experts and consultants (Drs. Mandy Habib, Margaret Blaustein, and Chandra Ghosh-Ippen) and in close collaboration with the film's producer Nathanael Matanick (known for his production of the ReMoved film series). A public awareness campaign hassled to widespread dissemination and application of the film across different service systems (www.rememberingtrauma.org).

In the past year, we have also taken steps towards making the Remembering Trauma films and resources more culturally sensitive and responsive. We created a CCTASI Cultural Equity Committee, consisting of internal members and thee external consultants who specialize in the study cultural equity and diversity. This committee examined Remembering Trauma through a culturally-sensitive and responsive lens and made several enhancements to the website and the resources. For example, language was added to the disclaimer, noting that people who have experienced historical trauma or other forms of racism or oppression may be especially impacted by the content of the films. We created a paragraph and questions focused on the intersection of trauma, race, ethnicity and other aspects of culture, which has been placed in a prominent place on the Remembering Trauma Webpage. We also drafted a comprehensive and detailed facilitator's guide focused on this intersection, which contains important definitions, questions for the facilitator's self-reflection, discussion questions for the viewers of film and resources for increasing knowledge related to the intersection of race, ethnicity and culture. The NCTSN Cultural Consortium has confirmed that CCTASI has set a standard for the way race, ethnicity and culture should be integrated into trauma-focused products.

The Remembering Trauma films are the foundation for CCTASI's public awareness campaign to raise awareness about complex trauma and misdiagnosis and promote training and discussion across service settings about these important topic areas. To support the dissemination and effective usage of the films in the field, CCTASI developed the Remembering Trauma website and supplemental resources, in addition to social media profiles, to enhance the launch of Remembering Trauma. The website www.rememberingtrauma.org provides:

- The embedded films, Part 1 and 2, including instructions for activating captions and Spanish subtitles
- A statement about the significance of race, culture, and trauma
- Relevant statistics and definition of complex trauma
- An interactive pledge to donate your time

- Contact information for getting help and contacting our Center

- Promotion (to market and promote the film in the community)
    - Flyer
    - Trainer (link to YouTube)
    - Creator and Director Bios
- Training (to support screening and facilitation of the films)
    - Facilitator's Guide and Discussion Questions – This document provides general guidelines, tips for facilitation, and general discussion questions across a range of service systems, including mental health, child welfare, juvenile justice as well as family partners
    - Role-Specific Discussion Questions – This document include targeting questions for different systems including mental health, child welfare, juvenile justice, and early education.
    - Child Trauma Infographic
    - NCTSN Factsheets

Since its launch, the website has been accessed by users in all 50 states and 46 countries outside of the United States. Website users have also pledged to donate 1 days, 15 hours, and 13 minutes toward promoting awareness of complex trauma and misdiagnosis. They have agreed to do this by sharing Remembering Trauma on social media (1 minute); print and share a resource on child trauma (5 minutes); talk "at the dinner table" or "at the water cooler about the film (25 minutes); or host a screening and discussion of the Remembering Trauma film (60 minutes). Over 950 individuals have downloaded resources from the Remembering Trauma website since its inception. The facilitator's survey has indicated that trainings have taken place throughout the United States and Canada.

Think Trauma Curriculum and Toolkit: Proposed Developmental Trauma/Complex Trauma Enhancements

CCTASI has worked closely with the National Center for Child Traumatic Stress to support the content updates to the Think Trauma Curriculum. In particular, we offered input and shared resources related to complex trauma/development trauma to support these enhancements to the curriculum identifying and offering feedback that these concepts were not elaborated sufficiently in previous versions in relation to JJ populations. We are also continuing to offer support for enhancements to the structure of the Training of Trainers for Think Trauma, and have been asked by the National Center to play a key role in supporting this effort as it moves forward:

- Reviewed and offered feedback on updated modules of Think Trauma. The second module of Think Trauma now incorporates the concept of complex trauma, which did not exist in the original version of Think Trauma. CCTASI has contributed to enhancing this new module by providing edits and suggestions to the slides. This includes clarification of definitions of complex trauma and its impact across domains of development.
- Suggestions were also made to help support the role of the attachment relationship both related to complex trauma and resilience/healing.
- The purpose of these enhancements is to provide a broader complex trauma framework when offering training to front-line professionals in juvenile justice as well as child welfare settings as a means of a) providing education to staff who many not otherwise have received this knowledge, and b) supporting a fuller understanding the range of potential trauma-related reactions among justice-involved youth.
- Feedback was also offered related to structuring and organizing the material to help ensure the content material is delivered in an effective manner

Addressing Developmental Trauma with the NCTSN Racial Injustice Position Statement

The NCTSN Racial Injustice Position Statement was published in 2016 (https://www.nctsn.org/resources/racial-injustice-and-trauma-african-americans-us-nctsn-position-statement) with the main objective of affirming the importance of addressing the impact of historical trauma, including slavery, in the lives of African Americans in the U.S. The Racial Justice Subcommittee has worked closely with the NCTSN Steering Committee to explore tangible ways that this statement can be disseminated to and implemented by NCTSN members. NCTSN members are encouraged to acknowledge historical events, biases, and population demographics in understanding health disparities and disproportionality. As such, historical trauma and the experience of racism (both past and current) are recognized and understood as significant parts of the trauma history for a child, a family, and a culture.

The "Racial Injustice and Trauma: African Americans in the U.S." is a call to action for the Network to collectively integrate the following specific activities within the work of the NCTSN:

1) Increase knowledge about the impact of race-based traumatic stress that affects many African American children, their families, and the communities in which they live;
2) In collaboration with experts in historical trauma related to African American history, develop and disseminate resources that child trauma professionals can use to identify, assess, and address historical trauma and racism in the context of high quality, trauma-informed, culturally responsive care; and
3) Become a national leader in raising awareness about historical trauma related to African Americans, the impact of current-day racial injustice, and the implication of such history and experiences on trauma-informed health and mental health care.

In efforts to integrate the impact of current-day African American racial injustice, the Think Trauma Curriculum update will include an entire section on understanding trauma in context which includes work by Dr. Kenneth Hardy and Tracey Laszloffy "Teens Who Hurt: Clinical Interventions to Break the Cycle of Adolescent Violence" as well as others such as Dr. Joy Degruy. The focus of the works included is intimately related to the intersecting issues of

trauma, race, culture and the sociocultural determinants of the impact of trauma. A key concept discussed will be Dr. Hardy's model of sociocultural trauma.

In order to integrate the Racial Injustice Position Statement into practitioners' work with survivors of complex/developmental trauma, CTDTD has partnered with a youth theatre group, Looking In Theatre (http://ghaa.crecschools.org/programs/looking_in_theatre) to disseminate trauma informed education that addresses the impact of racism and complex trauma on youths. The CTDTD has also partnered with the Health Disparities Institute at UConn Health Center to bring this education and related resources to the African American community. To ensure that community leaders and clinicians are currently familiarized with African Americans' mental health needs and the impact of developmental trauma on youths and families of color, CTDTD has provided educational resources and consultation, and has engaged in a collaborative dialogue with several grassroot organizations such as Connecticut National Alliance of Mental Illness, the Coalition Against Domestic Violence, GOODWorks, Inc, African Caribbean American Parents of Children with Disabilities, Inc., Connecticut Alliance of Foster and Adoptive Parents.

The NCTSN Racial Justice Subcommittee has developed the following resource to be utilized by clinicians who are seeking guidance in order to implement the statement in their daily clinical and organizational practices.

Citations

National Child Traumatic Stress Network Race and Trauma Subcommittee. (2018). Facilitated Discussions about Trauma and Racial Injustice: Guidance for an Initial Facilitated Dialogue. Los Angeles, CA, & Durham, NC: National Center for Child Traumatic Stress.

II. Innovations in Services for Children Exposed to Developmental Trauma

Developmental Trauma in the Lives of Transition Age Youth (TAY)

Across the United States, transition aged youth (TAY) comprise approximately one-fourth of the child welfare population and nearly 20,000 youth age out of foster care each year (USDHHS, 2015). Unfortunately, transitioning youth demonstrate poor outcomes across several domains including housing, employment, legal, and education as they initially transition and well into adulthood (George et al., 2002; Courtney et al., 2001; Wolanin, 2005; Courtney et al., 2007; Boonstra, 2011). Studies suggest that these negative outcomes may be related to early and ongoing exposure to adverse childhood experiences or traumatic event (Rebbe et al., 2017; Courtney et al., 2011; Salazar, Keller, Gowen, & Courtney, 2013).

Over a half of the general population experience at least one adverse experience or traumatic event by the time they reach adulthood (Felitti, Vincent, Anda, Robert, Nordenberg et al., 1998). Furthermore, one study suggests that nearly 30% of young adults reported that their worst trauma happened at or after age 16 years old, meaning that transition age youth are particularly vulnerable to experiencing trauma (Salazar, Keller, Gowen, & Courtney, 2012). In a community sample of 18-year-old youth, 43% had experienced some type of trauma (Giaconia, Reinherz, Silverman, Pakiz, Frost, & Cohen, 1995), and in a slightly older sample of urban youth, 82.5% had experienced trauma (Breslau, Wilcox, Storr, Lucia, & Anthony, 2004).

Additionally, youth who are transitioning to adulthood after system-involvement have particularly high rates of exposure to traumatic events, adverse childhood experiences, and poly-victimization (Salazar, Keller, Gowen, & Courtney, 2012; Courtney et al, 2011; Rebbe et al., 2017). Foster youth may be more susceptible to experiencing trauma than their peers. However, transitioning youth who come from other types of socially disadvantaged backgrounds also have a greater likelihood of experiencing trauma (e.g. living in poverty, being in racial minority; Cronholm et al., 2015; Kalmakis & Chandler, 2014). Furthermore, many youth experience environmental and relational instability during this transition, which compound the

negative effects of trauma (Wad, Shea, Rubin, & Wood, 2014, Douglas, Chan, Gelernter, Arias, Anton, et al., 2010; Wickrama & Noh, 2010). For youth who have an abrupt transition to adulthood, the impact of ongoing trauma is especially notable (Salazar, Keller, Gowen, & Courtney, 2013).

The impact of trauma can be especially harmful for transitioning youth as greater exposure to childhood traumatic experiences is related to increased mental and physical health issues during adolescence and adulthood across areas of development (Anda, Felitti, Bremner, Walker, Whitfield et al., 2006; Mclaughlin, Conron, Koenen, & Gilman, 2010)). For instance, a 10-year longitudinal study found that youth exposed to trauma had double the rates of psychiatric disorder and other impairments including disruptions in relationships, school issues, physical problems, and emotional problems (Copeland, Keeler, Angold, & Costello, 2007). Furthermore, older youth with developmental trauma experiences were more likely to report homelessness, depressive symptoms, PTSD symptoms, drug and alcohol abuse symptoms, risky sexual behavior, selling drugs, gang membership and engagement other criminal activities (Rebbe, Nurius, Ahrens, & Courtney, 2017). PTSD was the most common diagnosis for older foster youth, a population with more than average traumatic experience exposure (Keller, Salazar, & Courtney, 2010). However, despite the obvious need, there was a 60% decline in mental health service use during this time of transition (McMillen & Raghavan, 2009). These findings lay the foundation for why childhood trauma can be so detrimental for youth transitioning to adulthood.

There is a growing need to develop trauma-informed services and resources to meet the needs of the TAY subpopulation. Given this need, CCTASI is developing trauma-informed resources and training materials to support providers in understanding and addressing complex trauma reactions among TAY. As more trauma-informed services and resources are developed, intervention developers, practitioners, and researchers should consider factors such as specific trauma exposure and demographic characteristics when identifying how to best meet the needs for transition age youth. Current research supports tailoring interventions to effectively help youth transitioning to adulthood cope with trauma and resulting effects (Rebbe et al., 2017).

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Developmental Trauma in the Lives of Crossover Youth

"Crossover youth" is a term used to describe youth who engage in delinquent behavior who also have experienced maltreatment. When crossover youth are involved with the child welfare (CW) *and* juvenile justice (JJ) systems, they can be referred to as "dually-involved" youth. It has long been recognized that youth who become involved in either the CW or JJ system require special attention because, as compared to youth in the general population, they have significantly higher rates of exposure to adverse childhood experiences and other potentially traumatic events, as well as higher rates of traumatic stress symptoms.

Much less is known about trauma exposure and symptoms in crossover or dually-involved youth. In a recent, unpublished review of 81 published articles on crossover youth, only 10 included findings specific to child maltreatment or trauma. The majority of these studies examined the relationship between youth maltreatment history and involvement in delinquency. The findings were mixed. Most studies failed to find a direct relationship between type or amount of maltreatment, neglect, or adverse child experiences and risk for JJ involvement or recidivism (Baglivio, 2016; Cheng & Li, 2017; and Snyder & Merritt, 2014). One study (Barrett, 2014) found maltreatment was related to involvement in delinquency and one found an interaction between trauma exposure and placement type on recidivism (Robst, 2017). Several studies found a relationship between type of maltreatment and type of delinquency (Alain, Marcotte, Desrosiers & Turcotte 2018; Griffin, 2015; Malvaso, 2018). Notably, no study has examined trauma-related symptoms or rates of exposure to complex or developmental trauma.

Based on research with JJ and CW involved youth, crossover and dually-involved youth likely have very high rates of trauma exposure and suffer from symptoms of PTSD and complex or developmental trauma. While the body of research of crossover youth has increased significantly over the past 10 years, there is still much investigation needed to truly understand the role of trauma in the lives of crossover youth. Likewise, youth of color are overrepresented in both JJ and CW, and this disproportionality is even more pronounced in populations of crossover youth (Kolivoski, 2017; Cutuli, Goerge, Coulton, Schretzman, Crampton, Charvat,

Lalich, Raithel, Gacitua & Lee, 2016); thus, future research also needs to examine the inter-sectionality of demographic characteristics with trauma exposure amongst crossover youth.

Positively, there has been much work underway at the community level to better equip providers to support crossover and dually-involved youth. For example, the Crossover Youth Practice Model (CYPM), developed in 2015 by the Georgetown University Center for Juvenile Justice Reform, has been adopted by 110 jurisdictions across the United States. Unfortunately, the CYPM is not currently trauma-informed, and the primary developers recognize this as a gap that needs to be addressed. In order to address this gap, and in an attempt to increase the trauma knowledge and skill of all providers working with crossover youth, members from the NCTSN, co-led by Julian Ford at CTDTD, Tracy Fehrenbach at CCTASI, and Isiah Pickens at NCCTS, have created an informal workgroup that is in the process of developing a trauma-informed resource in conjunction with the developers of the CYPM.

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Addressing Developmental Trauma in Services for Newcomer Immigrant (Refugee, Unaccompanied, Asylum-seeking) Youth and their Families

"Newcomer immigrant youth" refers to a subset of immigrant children who are refugees, asylum seekers, and unaccompanied minors. As newcomer youth arrive in the United States, they face significant resettlement, acculturation, and isolation stressors. These stressors compound and exacerbate the adverse effects of the life-threatening or victimizing traumas that the youth experienced before, during, and after their migration. In many cases, these traumas may lead to behaviors that bring them into contact with the juvenile justice system.

Exposure to developmental trauma can alter the brain's responses to stress. When faced with danger, the brain's alarm system reacts with a classic stress response (i.e., the fight, flight or freeze response). This is an automatic survival reaction by the body to keep the youth safe. As a result, when feeling unsafe, even in situations that do not appear objectively dangerous, a youth may engage in behaviors (e.g., aggression, rule-breaking) that were protective and adaptive during past traumas, but are maladaptive in response to everyday life stressors. In the aftermath of experiencing developmental trauma, a youth's brain thus may become stuck in survival mode, leading them to experience stress reactions that interfere with their life and development such as:

- impulsive or problem behaviors,
- appearing emotionally shut-down,
- difficulties in interpersonal relationships,
- difficulties achieving important adolescent and adult milestones, and
- involvement in the juvenile justice system.

Newcomer immigrant youth often experience developmental trauma at multiple points of their migration journey. Some traumas are unique to specific points of the migration process; others can occur at any point before, during, or after migration.

Pre-Migration: Before leaving their country of origin, newcomer youth (and their family) often experience mass violence or other threats that require them to cope in survival mode.

- War and conflict (direct and indirect exposure to physical and sexual violence)
- Lack of food, water, shelter, medical care
- Forced displacement
- Traumatic loss of primary caregivers or key relationships

During Migration: During their residential transition, newcomer youths often experience additional traumas involving violence both as a victim and as a witness, abuse, and exploitation.

- Direct or indirect exposure to physical and sexual violence
- Lack of food, water, shelter, medical care
- Trafficking and financial exploitation
- Separation from family or caregivers (in some instances, forced separation)
- Hazardous travel (often long distance by foot or unsafe transportation)
- Unsafe and harmful living conditions within refugee camps

Post-Migration: After establishing a new home, newcomer youth may experience violence, discrimination, bullying, as well as disruptions to their lives, relationships, education, and cultural and spiritual communities and practices. These additional losses and stressors can keep youth and their families in a perpetual state of stress/survival.

- Extreme poverty
- Discrimination/bullying/hate crimes based on a component of one's identity (e.g. race, ethnicity, sexuality, religion, or native language)
- Separation from family members
- Family violence

- Living in unsafe neighborhoods (e.g., drug exposure, community violence, etc.)

For newcomer immigrant youth and families, research suggests several internal and external factors that promote resilience. These promotive factors for resilience include:

- language acquisition for children who acquire new language skills quickly,
- maintenance of cultural values and practice,
- connectedness to prosocial organizations within one's resettlement community,
- social support resources accessed through ethnic communities or an asylum center,
- access to religious institutions, and
- safety and sense of belonging within the neighborhood and school context.

Providers of services and key authorities such as teachers, mentors, and judges can help newcomer youth and their families recover from the adverse effects of developmental trauma and make positive adjustment in their current lives by supporting those promotive factors and assisting the youths and their families in receiving trauma-informed services.

1) Recognize when post-traumatic stress may play a role in a youth's emotional or behavior problems.

- Consider 7 signs of post-traumatic stress reactions when evaluating a youth's behavior
- Consider how traumas may have led to those post-traumatic stress reactions
- Consider how immigration or discrimination stressors may have exacerbated the youth's post-traumatic stress reactions and related behavior problems/delinquency
- Consider how the youth's personal resilience characteristics and family, community, school, and peer group resilience resources help the youth overcome post-traumatic stress reactions and cope effectively with immigration or discrimination stressors
- Consider how you can be a resilience resource for each youth by affirming their positive resilience characteristics and encouraging them to use those capabilities and other resilience resources to achieve their goals and not be trapped in trauma survival mode

2) Questions to consider when working with or providing support for each individual youth

- "Have I considered the extent to which post-traumatic stress reactions are playing a role in the youth's behavior?"
- "Have I taken into account the various forms of trauma, and the compounding immigration and discrimination stressors, s/he may have had in home country, en route to US, and once arrived?"
- "Am I sufficiently considering the trauma reminders that may occur in the setting(s) in which I am considering to place this youth?"
- "Have I considered how the impact that my decision may have on the youth's immigration status may place the youth at risk for further trauma or for a worsening of her/his post-traumatic stress reactions and associated behavior problems and delinquency/recidivism?"
- "Have I considered placements and services that will help this youth take responsibility for and overcome the post-traumatic stress reactions that contribute to her/his behavior problems?"
- "Have I considered the legal ramification of my actions on this youth's long-term prospects for immigration relief?"

3) Help youth and families access services to improve their sense of hope, efficacy, and quality of life by while taking responsibility for and overcoming their post-traumatic stress reactions

- Counseling or therapy that supports resilience and does not re-traumatize or trigger post-traumatic stress reactions for the youth
- Residential or community-based treatment that helps the youth understand post-traumatic stress reactions and how they can draw on their resilience resources instead of being in survival mode
- Referrals to health and behavioral health services that specifically screen and assess post-traumatic stress reactions and trauma history, and provide evidence-based treatments for PTSD and complex PTSD

- Hospitalization for severe or life-threatening post-traumatic stress reactions such as suicidality or chronic polysubstance addiction

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III. Innovations in Understanding Developmental Trauma and Recovery

Complex PTSD/Developmental Trauma Disorder

A complex form of PTSD (cPTSD) has been found to differ from classical PTSD and other psychiatric disorders as a result of involving what have been described as *disturbances of self-organization* (DSOs). In contrast to PTSD's fear-related symptoms, DSOs involve extreme emotional turmoil and a loss of personal control and stable identity. The symptoms of both PTSD and DSOs originate as attempts to cope with an existential threat. In PTSD the threat is of physical harm or death. In DSOs that physical threat is compounded by the additional threat of becoming overwhelmed with emotional turmoil and losing control psychologically. DSOs therefore have three components that parallel, but differ from, the core components of PTSD: emotions that are overwhelmingly strong or profoundly numbed and dissociated (emotion dysregulation); primary relationships that are extremely conflictual or detached (interpersonal dysregulation); and, a dysregulated sense of self that is unstable ("sometimes it's like I'm an entirely different person"), extremely negative ("I'm garbage"), or empty ("I'm nobody").

Adult cPTSD.

Although not included in the American Psychiatric Association's Fifth Edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*-5), cPTSD has been included in the World Health Organization *International Classification of Diseases,* 11th Edition (WHO *ICD*-11). cPTSD includes only six core symptoms (two each for the three features of emotion, interpersonal, and self dysregulation). Naming cPTSD as a diagnosis was based on research with a wide variety of populations internationally showing that DSO symptoms can be distinguished from symptoms of PTSD, depression, and borderline personality disorder.

Ford (2017) identified several themes in recent research on adult cPTSD. The prevalence of current cPTSD is comparable to that of PTSD in non-clinical (i.e., 1-5%) and psychiatric or other high-risk (16-45%) adult populations. cPTSD is characterized by a history of chronic exposure to interpersonal traumatic stressors (e.g., family or community physical or sexual violence or abuse), often beginning in childhood and exacerbated by adolescent or adult re-victimization. cPTSD often co-occurs with PTSD, but may occur separately, and is associated with more extensive psychiatric comoribidity (e.g., panic, depression, social phobia, addictive, or

personality disorders) and psychosocial impairment (e.g., interpersonal conflict or isolation, educational or work failure, self-harm or suicidality) than PTSD alone. Consistent with the *ICD*-11 cPTSD formulation, dissociation and bodily dysregulation (i.e., somatization) occur often in conjunction with DSOs, but DSOs equally often occur *without* dissociation or somatization. The risk of self-harm also is elevated in cPTSD, although this is primarily true when extreme emotion and self dysregulation is accompanied by severe dissociation or addiction.

cPTSD in Childhood. Exposure to complex trauma in childhood can lead to severe biopsychosocial problems beginning as early as in infancy/toddlerhood, and persisting or worsening in the school years, adolescence, and into adulthood. A study with adolescents who were receiving treatment for persistent traumatic stress reactions identified youths who had experienced complex trauma in one or more of three developmental epochs. When complex trauma exposure occurred in early childhood (i.e., ages 0-6 years), it primarily involved intra-familial maltreatment or violence associated with impaired caregivers. When complex trauma occurred in middle childhood (i.e., ages 7-12 years), in addition to intra-familial maltreatment and violence there often was the additional burden of extra-familial sexual abuse and community or school violence. In adolescence, complex trauma exposure became still more complex, increasingly involving sexual and physical assault as well as witnessing community/school violence and intra-familial emotional and physical abuse and family violence by impaired caregivers. Although the specific nature of complex trauma exposure changed across the developmental epochs, youth who had been exposed to complex trauma in early childhood tended to experience additional (or continued) complex trauma exposure in middle childhood and adolescence. Youths who reported exposure to complex trauma *only* in early childhood were twice as likely to be described by a parent as having clinically-significant emotional and behavioral problems, compared to youths who had experienced other traumas (e.g., traumatic losses or accidents) but were never exposed to complex trauma. And youths who reported experiencing complex trauma in all three developmental epochs from early childhood through adolescence were twice as likely to have not only emotional and behavioral problems but also clinically-significant PTSD symptoms. Thus, by the time that youths enter adulthood, all who have experienced complex trauma in early childhood are at risk for a range

of severe emotional and behavioral problems—but many may receive treatment that does not address their traumatic stress reactions because only those who have had chronic exposure to complex trauma continuing throughout childhood and adolescence are likely to develop classic PTSD symptoms. More than PTSD requires treatment for many adolescent complex trauma survivors—problems with emotion dysregulation, and conflict in or withdrawal from relationships that may impede their success in school, work, and other life pursuits, and alter their developing identity in ways that can lead to severe impairments long into adulthood. PTSD alone can alter the course of a child's entire life, especially when it occurs in the wake of persistent or repeated exposure to complex trauma. Modifications to the PTSD diagnosis for young children were included in the *DSM*-5 in order to prevent children who present with only a few of the symptoms—but symptoms that are severe enough to cause serious impairment — from being excluded from PTSD treatment. In the developmentally revised PTSD criteria, intrusive re-experiencing symptoms include not only re-enactments of traumatic events in play. And, only one symptom of either avoidance of reminders or emotional distress/numbing is required, because young children have a limited variety of avoidance strategies. However, complex traumatic stress reactions can lead children to receive multiple psychiatric diagnoses extending well beyond PTSD, that can follow them for the rest of their lives. Amongst the disorders that often are diagnosed with children who have complex trauma histories are reactive attachment disorder (RAD), generalized or phobic anxiety, panic, or obsessive compulsive disorders, bipolar disorder, psychotic or dissociative disorders, eating, body image, or sexual disorders, disruptive behavior disorders (e.g., Attention Deficit Hyperactivity Disorder; Oppositional Defiant or Conduct Disorder), and traits of personality disorders. While childhood exposure to complex traumatic stressors may not be the sole, or even primary, cause of those disorders' symptoms, when complex traumatic stress reactions contribute to and exacerbate their other symptoms then standard treatments for those other psychiatric disorders may be ineffective or even harmful because they do not remediate the unrecognized role of stress reactions.

These youths also may be identified as "antisocial," "aggressive," or "delinquent," and deemed unsuitable for therapeutic treatments despite having shown signs (often overlooked)

of severe emotional distress related to complex trauma exposure earlier in their lives. Despite the extensive evidence that children and adolescents who are exposed to complex trauma are at risk for potentially lifelong complex traumatic stress reactions, it was not until an expert group from the National Child Traumatic Stress Network was convened and generated a call to action that a cPTSD diagnosis was set forth. First proposed by that working group in 2005, Developmental Trauma Disorder (DTD) was established as a framework of assessment and treatment planning for children following the results in 2013 of an international survey of child-serving clinicians.

DTD identifies children's complex traumatic stress reactions in three domains of dysregulation: emotion/somatic, cognition/behavior, and self/ relationships. The DTD dysregulation domains closely parallel, and may be developmental precursors of, the three domains of adult DSO. Emotional, somatic cognitive, and behavioral self-control, a sense of self, and enduring ways of engaging in relationships are all works in progress in childhood and adolescence, and thus they represent forms of self-regulation that can become dysregulated when extreme forms of survival adaptation are necessitated by exposure to complex trauma during those formative developmental epochs. The combination of emotion and bodily dysregulation in DTD is consistent with the development of emotions and emotion regulation occurring in the context of major changes in the body and the common expression of emotions by children via somatic symptoms rather than in words.

A specific form of complex trauma is hypothesized to pose the existential threat that can lead children and adolescents to become severely dysregulated in the three DTD domains. This is a combination of traumatic victimization (e.g., maltreatment, family or community violence) and disruption or loss of secure attachment with primary caregiver(s) (e.g., severely impaired, neglectful, or emotionally abusive adult caregivers). Consistent with this view, in a multi-site DTD field trial study conducted by members of the NCTSN DTD work group, children who were identified with dysregulation consistent with DTD not only tended to have complex trauma histories involving multiple types of victimization in multiple life settings and relationships—they also were best distinguished from children who had "only" PTSD by past exposure to both community and family violence and severely impaired primary caregivers. Thus, although not

accepted as a diagnosis in the *DSM*-5, DTD represents a promising clinical framework for identifying and guiding the treatment of children and adolescents with complex trauma histories.

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Poly-victimization

Victimization is the experience of being directly or indirectly harmed or deprived of protection from harm by the actions of other persons. Several types of victimization have been identified, including: physical abuse, sexual abuse, emotional abuse, physical neglect, emotional neglect, physical assault, sexual assault, domestic or intimate partner violence, stalking, community violence, bullying, kidnapping, human trafficking, torture, war violence, genocide or ethnic cleansing, hate crimes or identity-based violence, property crimes, robbery.

David Finkelhor's research group originated the term, "poly-victimization" to refer to exposure to multiple types of victimization. A sub-group of victimized children who are poly-victims has been identified in research conducted with community, school, psychiatric, child welfare, and juvenile justice samples of children and adolescents in numerous countries internationally. A sub-group of adults who were poly-victimized in childhood also has been identified in research with college, community, psychiatric, and incarcerated samples.

Poly-victims are exposed to multiple forms of adversity and violence that was inflicted intentionally or as a result of neglect, often by a variety of perpetrators at multiple time-points and in multiple contexts during formative developmental periods. The types of victimization that may contribute to poly-victimization closely parallel the types of interpersonal traumatic stressors that constitute complex trauma. Poly-victimized children have been exposed to multiple *types* of complex trauma, including: sexual, physical, and emotional maltreatment by caregivers or other adults; physical or sexual assault or bullying by peers or older youths; and witnessing violent and traumatic incidents in the home, school, and community. Poly-victims often also are unintentionally victimized as well, having experienced other forms of traumatic stressors such as severe accidents, illnesses, disasters, and loss of loved ones.

Poly-victimization is associated with severe emotional, behavioral, and interpersonal problems across the lifespan. The adverse sequelae of poly-victimization include not only PTSD but also a wide range of psychiatric disorders (e.g., anxiety, affective, psychotic, eating, sleep, sexual), substance use disorders, self-harm and suicidality, learning and school problems, disruptive behavior disorders (e.g., anger problems; oppositional defiant disorder; conduct disorder), delinquency and legal/criminal justice problems, stress-related medical problems,

and personality disorders in adulthood. Poly-victimization also has been shown to have a more severe adverse impact than that of any single form of victimization, even the most traumatic types of victimization (e.g., sexual abuse or assault; catastrophic family or community violence).

Poly-victimization can begin in early childhood, and becomes more complex over time as children grow from early to middle childhood and into adolescence and young adulthood. Poly-victimization in early childhood tends to involve family violence and child maltreatment. In middle childhood and adolescence poly-victimization often is further complicated by direct exposure (e.g., bullying) or witnessing violence in school or the community. Emotional (including anger) and behavioral problems in early childhood can lead to poly-victimization, as well as being a result of poly-victimization. Poly-victimization itself puts children at risk for additional victimization: poly-victimized children are four times more likely than other children and teens to be re-victimized again within a year. Other risk factors for poly-victimization include any experience of child maltreatment, social isolation (having few friends), going through a major developmental transition (e.g., entering elementary of high school), and living in a family in which violence, substance abuse, or parental unemployment has occurred.

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Emotion Regulation and Posttraumatic Dysregulation

Emotion regulation involves several psychological processes or skills: (1) awareness of bodily states; (2) maintaining bodily arousal within a window of tolerance (neither too intense nor too blunted); (3) awareness of one's own emotion states; (4) translation of feelings into words; (5) making meaning of emotion states; (6) alteration of emotion states (cognitive reappraisal), (7) tolerance of distress, (8) awareness of others' emotion states, (9) empathic validation of one's own and others' emotion states, (10) inhibition of impulsive reactions to one's own or others' emotion states, (11) expression of emotions in a personally and interpersonally meaningful manner, and (12) translation of emotions into self-enhancing and prosocial goals. Emotion regulation thus provides the foundation and scaffolding needed to be able to identify and find meaning in emotion states, and then to transform maladaptive ones (e.g., chronic anxiety, dysphoria, grief or anger) into adaptive ones (e.g., curiosity, pride, hope) that build a coherent sense of self and meaningful relationships and life pursuits.

However, emotion regulation can be profoundly impaired by exposure to traumatic stressors, complex trauma, developmental trauma, or poly-victimization, especially in formative developmental periods in childhood and adolescence. For example, more than three-quarters of maltreated children were observed to have dysregulated emotions (i.e., impulsive/ explosive or shut-down), and this was associated with a wide variety of psychosocial problems (e.g., depression; anxiety). Emotion dysregulation also was a direct link between maltreatment and both depression and anxiety. Similarly, toddlers exposed traumatic events often developed problems with emotion regulation, social functioning, and emotional and behavior problems, especially if they showed dramatic changes in their behavior soon after exposure to trauma. Violence-exposed infants and toddlers were especially likely to develop PTSD symptoms related to emotion dysregulation, which were a direct link between their early-life violence exposure and emotional and behavioral problems years later when the children were in elementary school—over and above the adverse effects of living in poverty or a dangerous community. School-aged children with histories of sexual abuse similarly were found to often have severe emotion dysregulation, in combination with dissociation and disruptive behavior problems.

Post-traumatic emotion dysregulation can persist for years or decades, well beyond childhood into adulthood in the form of chronic PTSD, severe dissociation, depression, addictions, self-harm, somatization, eating disorders, and borderline personality disorder. However, the protective role that emotion regulation may play in mitigating the adverse effects of complex trauma on adult survivor's functioning and interpersonal relationships was suggested by findings that emotion regulation provided a direct link between reduced PTSD symptoms and reductions in impulsive aggression in a sample of military veterans seeking PTSD treatment. A biological basis for emotion regulation's positive contribution to recovery from trauma has been identified in research showing that therapeutically reduced activation of the brain and body's innate alarm system (notably the amygdala) is associated with reduced PTSD and improved emotion regulation. Several therapeutic interventions designed to support and enhance emotion regulation have been developed and are acquiring a growing evidence base of efficacy and effectiveness with developmentally traumatized children and adults.

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Intergenerational and Historical Trauma

Every individual, family, and community has a heritage that includes a distinctive blend of racial, ethnic, cultural, and national traditions, norms, values, and experiences. Within this heritage there often also is a historical legacy of exposure to psychological trauma that has affected entire communities or nations over a span of many generations. Psychological trauma and posttraumatic stress reactions are epidemic internationally as well, particularly for ethnoracial minority groups (which include a much broader range of ethnicities and cultures and manifestations of stress reactions than typically are recognized in studies of PTSD in the United States; (De Jong, Komproe, Spinazzola, van der Kolk, & Van Ommeren, 2005). In addition, race, ethnicity, and culture tend to be described with shorthand labels that appear to distinguish homogeneous sub-groups, but that actually obscure the true heterogeneity within as well as between different ethnocultural groups. There is sufficient diversity (in norms, beliefs, values, roles, practices, language, and history) *within* each categorical ethnocultural grous such as African Americans or Latinos to call into question any sweeping generalizations about their exposure and vulnerability or resilience to psychological trauma (Pole et al., 2008).

However, when systematic disparities in exposure to stressors or deprivation of resources are identified for specific ethnocultural groups, such as persons from indigenous cultures--the original inhabitants of a geographic area who have been displaced or marginalized by colonizing national/cultural groups—are found to have a generally increased risk of discrimination, poverty, or poor, it is crucial not to mistakenly conclude that those persons' ethnic or cultural histories or backgrounds make them less resilient than others when they are confronted with traumatic stressors. Commonly, the very opposite is true: persons and groups who are subjected to chronic stressors or deprivations tend to be *more* resilient than others, but they also are more exposed to and less protected from traumatic stressors (Pole et al., 2008).

Racism is a particular chronic stressors that is faced by many members of ethnoracial minority groups. Racism may increase the risk of exposure to psychological trauma, exacerbate the impact of psychological traumas and increase the risk of PTSD, or constitute a form of psychological trauma in and of itself. When racism leads to the targeting of ethnoracial minority groups for violence, dispossession, or dislocation, the risk of PTSD increases in proportion type and degree of psychological trauma involved in these adverse experiences (Pole et al., 2008).

Racism also indirectly reduces access to protective factors (socioeconomic resources) that protect against the adverse effects of stressors (such as poverty, pollution) and traumatic stressors (such as accidents, crime, or violence). It is important to determine whether developmental

trauma occurs in a current or historical context of racism. Racial disparities in access to education are due both to direct influences (such as lower funding for inner city schools that disproportionately serve ethnoracial minority students) and indirect associations with other racial disparities (such as disproportionate juvenile and criminal justice confinement of ethnoracial minority persons. Racial disparities in education are both the product of and a contributor to reduced access by ethnoracial minorities to other socioeconomic and health resources (such as income, health insurance). When investigating risk and protective factors for developmental trauma exposure and disorder, it is essential therefore to consider race and ethnicity in the context not only of ethnocultural identity and group membership but also of racism and other sources of racial disparities in access to socioeconomic resources.

Although all ethnoracial minority groups tend to be disproportionately disadvantaged, particularly severe disparities in access to vital resources often are complicated by exposure to pervasive violence and by the loss of ties to family, home, and community. When family and community relationships are severed—as occurs with massive political upheaval, war, genocide, slavery, or catastrophic disasters--racial and ethnocultural groups may find themselves scattered and subject to exploitation. For example, there continue to be massively displaced populations in central and south America, the Balkans, central Asia, and Africa. When primary social ties are cut or diminished as a result of disaster, violence, or political repression, the challenge expands beyond survival of traumatic life-threatening danger to preserving a viable life, community, and culture in the face of life-altering losses. Ethnoracial groups that have been able to preserve or regenerate core elements of their original cultural norms, practices, and relationships within intact or reconstituted families may actually be particularly resilient to traumatic stressors and protected against the development of PTSD.

However, when families and entire communities are destroyed or displaced, the impact on the psychobiological development of children and young adults may lead to complex forms of developmental trauma exposure that result in not only persistent fear and anxiety but also inter-generational transmission of risk for developmental trauma disorder, particularly when racism constitutes or leads to historical traumatization that may be transmitted across generations (Kirmayer, Gone, & Moses, 2014; Maxwell, 2014). Recent research findings have demonstrated that mass exposure to psychological trauma may adversely affect not only current but also future generations (Bowers & Yehuda, 2016; Hatala, Desjardins & Bombay, 2016). Intergenerational

resilience also has been demonstrated (Atallah, 2017; Reinschmidt et al., 2016), and warrants attention as a focus for large scale community wellness and prevention interventions as well as in the development of treatments that enhance recovery from developmental trauma disorders.

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Network Analyses of Psychological Trauma and Its Adverse Impacts

Paralleling the search for genetics profiles or signatures of diseases (i.e., genomics), studies are mapping interconnections (or networks) that link CT/cPTSD-related symptoms—which is referred to as "symptomics" (Armour, Fried, & Olff, 2017). Symptomics using network statistical analyses with adult trauma survivors have identified three relatively distinct sub-sets of symptoms that are centrally located amongst the full set of PTSD symptoms (Armour, Fried, Deserno, Tsai, & Pietrzak, 2017; Mitchell et al., 2017): (1) fear circuitry (e.g.., intrusive re-experiencing, avoidance); (2) survival defense (e.g., hyperarousal, hypervigilance); and, (3) defeat and demoralization, which may include emotional numbing (Armour, Fried, Deserno, et al., 2017; Birkeland & Heir, 2017), dysphoria (McNally et al., 2014), depression (Choi, Batchelder, Ehlinger, Safren, & O'Cleirigh, 2017), or self-blame (Armour, Fried, Deserno et al., 2017). Fear circuitry symptoms were found to be highly interrelated and central in the acute phase of adult PTSD, while as PTSD became more chronic clusters of survival defense and defeat/demoralization symptoms also emerge (Bryant et al., 2017). Similarly, among traumatized children, network studies report that fear circuitry symptoms (including nightmares, flashbacks, and rumination about traumatic events) are closely interconnected (Russell, Neill, Carrion, & Weems, 2017), and that dissociative forms of fear circuitry symptoms (i.e., flashbacks) are interconnected with both fear circuitry symptoms and dissociative symptoms (Saxe et al., 2016).

Recent network analysis studies also have included cPTSD symptoms with survivors of CT. A study with adult survivors of childhood maltreatment found that chronic anger was not specifically related to any type of maltreatment, but when it was manifested in the form of angry rumination about past events it was highly associated with several types of maltreatment and especially strongly with emotional abuse (Gluck, Knefel, & Lueger-Schuster, 2017). PTSD symptoms also were closely associated with a history of emotional abuse, but not with angry rumination or anger—supporting a distinction between PTSD versus cPTSD, with the latter involving symptoms of disturbances of self-organization consistent with chronic anger and angry rumination. A study of adult survivors of childhood sexual abuse found that physiological and emotional reactivity to abuse reminders were the primary drivers of other PTSD symptoms,

with abuse-related dreams (potentially indirectly reflecting hypervigilance) and anhedonia (possibly reflecting defeat and demoralization) also were centrally located amongst the PTSD symptoms (McNally, Heeren, & Robinaugh, 2017). These findings are consistent with a view of cPTSD as involving chronic fear-related bodily and emotional reactivity (both while asleep and awake) in combination with severe psychological and relational dysregulation.

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